

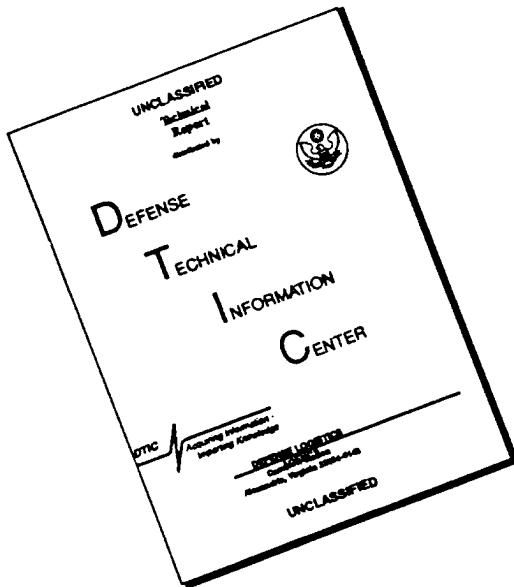
# REPORT DOCUMENTATION PAGE

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13. ABSTRACT (Maximum 200 words)  <b>PURPOSE:</b> Studies of U.S. Army soldiers have found higher rates of injury among smokers. We tested this relationship for individuals performing military parachuting, an activity associated with high-energy collisions and relatively high injury rates. <b>METHODS:</b> Three groups of U.S. Army soldiers (N=1706) participated in one of three prospective studies. The first two groups were students participating in basic airborne training in either 1991 (n=449) or 1992 (n=848). Each student made five parachute jumps over five days. The third group was experienced soldiers from a combat ready airborne unit (n=409) each completing a single jump in 1993. All individuals were given questionnaires prior to their jumps. The outcome measure was medically attended injuries. Logistic regression was used to analyze injury type, use of cigarettes, use of smokeless tobacco, age, gender, and physical fitness test scores (maximum number of situps in two minutes, maximum number of pushups in two minutes, and a two-mile timed run). <b>RESULTS:</b> The risk of an injury was lower among students than combat jumpers (6.8/1000 jumps vs. 130/1000 jumps). Injury risk was significantly higher among older and less (truncated after 200 words)		
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6. The attached material ~~contains~~/does not contain classified material. It ~~contains~~/does not contain any potentially sensitive or controversial material.

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Signatures of Other USARIEM Authors

7. Editorial Comments ~~have~~/have not been requested:

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## 516 - Monday Poster

Presenter: Amoroso, Paul

### TOBACCO USE AND INJURY RISK AMONG MILITARY PARACHUTISTS

Amoroso PJ; Dettori JR; Reynolds KL; Schneider GA; Lavin PT; Ryan JB; Jones BH

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**PURPOSE:** Studies of U.S. Army soldiers have found higher rates of injury among smokers. We tested this relationship for individuals performing military parachuting, an activity associated with high-energy collisions and relatively high injury rates.

**METHODS:** Three groups of U.S. Army soldiers (N=1706) participated in one of three prospective studies. The first two groups were students participating in basic airborne training in either 1991 (n=449) or 1992 (n=848). Each student made five parachute jumps over five days. The third group was experienced soldiers from a combat ready airborne unit (n=409) each completing a single jump in 1993. All individuals were given questionnaires prior to their jumps. The outcome measure was medically attended injuries. Logistic regression was used to analyze injury type, use of cigarettes, use of smokeless tobacco, age, gender, and physical fitness test scores (maximum number of situps in two minutes, maximum number of pushups in two minutes, and a two-mile timed run).

**RESULTS:** The risk of an injury was lower among students than combat jumpers (6.8/1000 jumps vs. 130/1000 jumps). Injury risk was significantly higher among older and less physically fit individuals (injury risk increased 4% for each additional year of age and decreased 2% for each additional situp). There was no significant smoking effect [OR 0.49 (95% CI 0.11-2.13)]. Smokeless tobacco users had a higher risk of injury overall, [OR 1.52 (95% CI 0.94-2.47)]; this association was inconsistent across the study populations.

**CONCLUSION:** The associations of physical fitness and age with injury risk is consistent with previous findings. The effect of smokeless tobacco on these populations is unclear and will require further study. In this population where injuries are caused by single-event, high-energy trauma, no significant smoking effect was demonstrated. This finding suggests the effect of smoking on injury may be more important for low impact, repetitive events.